



ARBITRATION SYSTEM AND METHOD FOR MEMORY RESPONSES IN A HUB-BASED  
MEMORY SYSTEM

ABSTRACT OF THE DISCLOSURE

A memory hub includes a local queue that stores local memory responses, a bypass path that passes downstream memory responses, and a buffered queue coupled to the bypass path that stores downstream memory responses from the bypass path. A multiplexer is coupled to the local queue, buffered queue, and the bypass path and outputs responses from a selected one of the queues or the bypass path responsive to a control signal. Arbitration control logic is coupled to the multiplexer and the queues and develops the control signal to control the response output by the multiplexer.